

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant: Benjamin David Foster et al.

Title: LISTING RECOMMENDATION IN A NETWORK-BASED COMMERCE SYSTEM

Docket No.: 2043.090US1
Filed: October 20, 2003
Examiner: Adam Levine



Serial No.: 10/689,970
Due Date: June 29, 2007
Group Art Unit: 3625

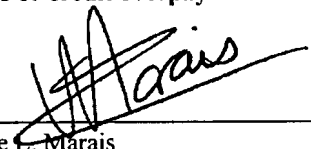
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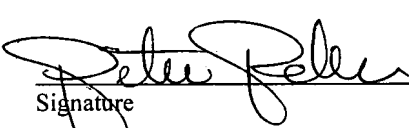
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PATENT

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APPEAL BRIEF UNDER 37 CFR § 41.37

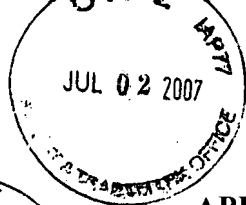
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The Appeal Brief is presented in response to the Notice of Panel Decision from Pre-Appeal Brief Review mailed on May 29, 2007 and further in support of the Notice of Appeal to the Board of Patent Appeals and Interferences, filed on April 25, 2007, from the Final Rejection of claims 1-30 of the above-identified application, as set forth in the Final Office Action mailed on January 25, 2007.

The Commissioner of Patents and Trademarks is hereby authorized to charge Deposit Account No. 19-0743 in the amount of \$500.00 which represents the requisite fee set forth in 37 C.F.R. § 41.20(b)(2). The Appellants respectfully request consideration and reversal of the Examiner's rejections of pending claims.

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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1. REAL PARTY IN INTEREST

The real party in interest of the above-captioned patent application is the assignee, EBAY INC. as evidenced by the assignment recorded August 30, 2004 at Reel 015734, Frame 0914.

2. RELATED APPEALS AND INTERFERENCES

The following related appeal(s) or interference(s) may have a bearing on the Board's decision in the present appeal:

An Appeal Brief was filed on October 18, 2006 for Serial No. 10/666,681 (Attorney Docket No. 2043.093US1).

3. STATUS OF THE CLAIMS

The present application was filed on October 20, 2003 with claims 1-28. In response to a non-final Office Action mailed June 13, 2006, claims 29 and 30 were added. A Final Office Action (hereinafter “the Final Office Action”) was mailed January 25, 2007. Claims 1-30 stand twice rejected, remain pending, and are the subject of the present Appeal.

4. STATUS OF AMENDMENTS

No amendments have been made subsequent to the Final Office Action mailed January 25, 2007.

5. SUMMARY OF CLAIMED SUBJECT MATTER

Independent method claim 1 relates to a method of generating listing recommendations to a user of a network-based commerce system (*see, e.g.*, Application at Abstract) including: identifying a term associated with a user interaction in the network-based commerce system (*see, e.g.*, Application at p. 13, ln. 13-19), the identified term occurring within a search query (*see, e.g.*, Application at p. 13, ln. 20-24; p. 6, ln. 16-22); automatically generating a recommendation query including the identified term (*see, e.g.*, Application at p. 14, ln. 10-13); running the recommendation query against a plurality of listings of the network-based commerce system to identify at least one recommended listing (*see, e.g.*, Application at p. 14, ln. 17-18); and presenting the at least one recommended listing to a user of the network-based commerce system (*see, e.g.*, Application at p. 26, ln. 26-27).

Dependent claim 6 relates to the method of claim 1, wherein the identified term is selected based on its existence in a predetermined minimum number of user-generated search queries submitted to the network-based commerce system (*see, e.g.*, Application at p. 12, ln. 11-16).

Dependent claim 10 relates to the method of claim 1, wherein the identifying the term includes: retrieving data related to a previous user interaction (*see, e.g.*, Application at p. 13, ln. 14-17); determining category data related to a listing associated with the previous user interaction (*see, e.g.*, Application at p. 13, ln. 18-19); retrieving at least one popular search term associated with the category data (*see, e.g.*, Application at p. 13, ln. 20-24); and generating the recommended listing based on the popular search term (*see, e.g.*, Application at p. 14, ln. 7-9).

Independent system claim 21 relates to a system to generate listing recommendations to a user of a network-based computer system (*see, e.g.*, Application at Abstract; p. 11, ln. 20-23), the system including: a communication engine to receive interaction data relating to a user interaction with a client machine (*see, e.g.*, Application at p. 11, ln. 23-27); a database engine to identify a term associated with the user interaction in the network-based computer system, the identified term occurring within a search query (*see, e.g.*, Application at p. 11, ln. 23 – p. 12, ln. 3), and automatically to generate a recommendation query including the identified term (*see,*

e.g., Application at p. 11, ln. 25-27); and a search engine to run the recommendation query against a plurality of listings of the network-based computer system to identify at least one recommended listing (*see, e.g.*, Application at p. 12, ln. 3-7), wherein the at least one recommended listing is communicated to the client machine of the network-based computer system (*see, e.g.*, Application at p. 11, ln. 15-16).

Independent machine-readable medium claim 25 relates to a machine-readable medium including a set of instructions that, when executed by a machine, cause the machine to: identify a term associated with a user interaction in the network-based computer system (*see, e.g.*, Application at p. 13, ln. 13-19), the identified term occurring within a search query (*see, e.g.*, Application at p. 13, ln. 20-24; p.6, ln. 16-22); automatically generate a recommendation query including the identified term (*see, e.g.*, Application at p. 14, ln. 10-13); run the recommendation query against a plurality of listings of the network-based computer system to identify at least one recommended listing (*see, e.g.*, Application at p. 14, ln. 17-18); and communicate a data signal including the at least one recommended listing to a user of the network-based computer system (*see, e.g.*, Application at p. 26, ln. 11-16).

Independent system claim 28 relates to a system to generate listing recommendations to a user of a network-based computer system (*see, e.g.*, Application at Abstract; p. 11, ln. 20-23), the system including: means for identifying a term associated with a user interaction in the network-based computer system, the identified term occurring within a search query (*see, e.g.*, Application at p. 11, ln. 23 – p. 12, ln. 3); means for automatically generating a recommendation query including the identified term (*see, e.g.*, Application at p. 11, ln. 25-27); means for running the recommendation query against a plurality of listings of the network-based computer system to identify at least one recommended listing (*see, e.g.*, Application at p. 12, ln. 3-7); and means for communicating a data signal including the at least one recommended listing to a user of the network-based computer system (*see, e.g.*, Application at p. 11, ln. 15-16).

This summary does not provide an exhaustive or exclusive view of the present subject matter, and Appellants refer to each of the appended claims and its legal equivalents for a complete statement of the invention.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- 1) Claims 1, 10, 21, 25 and 28 were rejected under 35 U.S.C. § 112, second paragraph, for failing to set forth the subject matter which Appellants regard as their invention.
- 2) Claim 12 was rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness.
- 3) Claims 1-2, 4-11, 21 and 23-30 were rejected under 35 U.S.C. § 102(b) for anticipation by Hirooka et al. ("Extending content-based recommendation by order-matching and cross-matching methods").
- 4) Claims 3, 12-20 and 22 were rejected under 35 U.S.C. § 103(a) as being obvious over Hirooka in view of Ryan (U.S. Publication No. 2003/0055831).

7. ARGUMENT

A) The Applicable Law

Definiteness of claim language must be analyzed, not in a vacuum, but in light of: (A) The content of the particular application disclosure; (B) The teachings of the prior art; and (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

When reviewing a claim for compliance with 35 U.S.C. 112, second paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. *See, e.g., Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379, 55 USPQ2d 1279, 1283 (Fed. Cir. 2000). *See also In re Larsen*, No. 01-1092 (Fed. Cir. May 9, 2001) (unpublished) (The preamble of the Larsen claim recited only a hanger and a loop but the body of the claim positively recited a linear member. The court observed that the totality of all the limitations of the claim and their interaction with each other must be considered to ascertain the inventor's contribution to the art. Upon review of the claim in its entirety, the court concluded that the claim at issue apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112 paragraph 2.). *See also Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366, 71 USPQ2d 1081, 1089 (Fed. Cir. 2004) ("The requirement to 'distinctly' claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principles....Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite.").

Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, "[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*" *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542,

220 USPQ 193 (Fed. Cir. 1983)) (emphasis added).

The Examiner also has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). In combining prior art references to construct a *prima facie* case, the Examiner must show some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art that would lead an individual to combine the relevant teaching of the references. *Id.* The M.P.E.P. contains explicit direction to the Examiner that agrees with the *In re Fine* court:

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d (BNA) 1438 (Fed. Cir. 1991)).

An invention can be obvious even though the suggestion to combine prior art teachings is not found in a specific reference. *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d (BNA) 1443 (Fed. Cir. 1992). However, while it is not necessary that the cited references or prior art specifically suggest making the combination, there must be some teaching somewhere which provides the suggestion or motivation to combine prior art teachings and applies that combination to solve the same or similar problem which the claimed invention addresses. One of ordinary skill in the art will be presumed to know of any such teaching. (See, e.g., *In re Nilssen*, 851 F.2d 1401, 1403, 7 U.S.P.Q.2d 1500, 1502 (Fed. Cir. 1988) and *In re Wood*, 599 F.2d 1032, 1037, 202 U.S.P.Q. 171, 174 (C.C.P.A. 1979)). However, the level of skill is not that of the person who is an innovator but rather that of the person who follows the conventional wisdom in the art. *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 474, 227 U.S.P.Q. 293, 298 (Fed. Cir. 1985). The requirement of a suggestion or motivation to combine references in a *prima facie* case of obviousness is emphasized in the Federal Circuit opinion, *In*

re Sang Su Lee, 277 F.3d 1338; 61 U.S.P.Q.2D 1430 (Fed. Cir. 2002), which notes that the motivation must be supported by evidence in the record.

The test for obviousness under § 103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 U.S.P.Q. 543, 551 (Fed. Cir. 1985). References must be considered in their entirety, including parts that teach away from the claims. See MPEP § 2141.02. The fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01.

B) The References

Hirooka: discloses a system for providing recommended books to a user based on a vector of keywords derived from past book purchases (*see* Hirooka at Abstract).

Ryan: discloses a method of tracking and prioritizing web page listings selected by users and thereby presenting first the most popular web page listings in subsequent searches (*see* Ryan at Abstract).

C. Discussion of the Rejections

C.1 The Rejection of claims 1, 10, 21, 25, and 28 under § 112

Appellants respectfully submits that claims 1, 10, 21, 25, and 28 conform to the requirements of § 112, second paragraph. The Final Office Action asserted that “the invention is different from what is defined in the claim(s) because claims 1, 10, 21, 25, and 28 do not include any distinct reference to a new, unique, or at least different search query created based on identified terms occurring within an original, first search query.” Final Office Action at p. 8, § 1.

Appellants respectfully submit that a close reading of the claims do in fact support Appellants’ previous argument. As a representative example, claim 1 recites “identifying a term associated with a user interaction ... the identified term occurring with a search query” and then further recites “automatically generating a recommendation query including the identified term.” These clauses found in claim 1, and similarly found in claims 10, 21, 25, and 28, specifically support a reference to a “new, unique, or at least different search query” (Appellants’ recommendation query) “based on identified terms occurring within an original, first search

query” (Appellants’ search query). Accordingly, Appellants respectfully request reversal of this rejection of these claims.

C.2 The Rejection of claim 12 under § 112

Appellants respectfully submit that claim 12, as currently recited, conforms to the requirements of § 112, second paragraph. The Final Office Action identified an ambiguity of the relationship between the popularity boundaries and the listings recited in claim 12. Appellants have amended claim 12 and respectfully submit that the amended claim removes this asserted ambiguity. Accordingly, Appellants respectfully request reversal of this rejection of this claim.

C.3 The Rejection of claims 1,2, 4-11, 21, and 23-30 under § 102(b) using Hirooka

Appellants respectfully submit that a *prima facie* case of anticipation of claims 1, 2, 4-11, 21 and 23-30 has not been established because Hirooka fails to disclose all elements as arranged of the present claims, as arranged in the claims.

Concerning Claims 1, 21, 25, and 28

In particular, Appellants cannot find in the cited portions of Hirooka “identifying a term associated with a user interaction in the network-based commerce system, the identified term occurring within a search query,” as currently recited in claim 1, and similarly recited in claims 21, 25, and 28. As discussed in a previous Office Action response, there is no reference to using a search query to determine a recommendation listing. Appellants respectfully submit that the only cited portion of Hirooka that does mention a search query concept is at § 3.3.1 in Hirooka, which states “it is easy to imagine that [a customer] uses different keywords to search in different book categories.” Apparently, Hirooka uses the statement to define a problem and proposes a solution of generating “generat[ing] several sets of keywords for each category that the customer has interest,” as stated in the following sentence. The mere mention of a search query concept does not provide an enabling disclosure as required to support a rejection under § 102. *See* M.P.E.P. § 2121.01 (citing *Elan Pharm., Inc. v. Mayo Found. For Med. Educ. & Research*, 346 F.3d 1051, 1054, 68 USPQ2d 1373, 1376 (Fed. Cir. 2003)). Hirooka then goes on to describe an implementation that does not actually use a search query, but rather builds a recommendation

listing using one of three sources: book information, customer profile information, and customer purchases. *See* Hirooka at § 4.1. However, Hirooka does not disclose or describe identifying a term occurring within a search query, generating a recommendation query that includes the search term, and presenting a recommended listing (identified using the recommendation query) to a user, as is required by claim 1 of the present application. The above argument is also applicable to a consideration of independent claims 21, 25, and 28. Thus, because Hirooka does not disclose or describe all elements of claims 1, 21, 25, and 28, Appellants respectfully submit that there is no *prima facie* case of anticipation and respectfully request withdrawal of the basis of these rejections of these claims.

Concerning Claim 6

Appellants cannot find in the cited portions of Hirooka “the identified term is selected based on its existence in a predetermined minimum number of user-generated search queries submitted to the network-based commerce system” as currently recited in claim 6. As discussed above with reference to claim 1, Hirooka apparently does not obtain terms from prior user queries (search queries) when constructing the vector of keywords for the customer’s profile. Moreover, Hirooka apparently does not disclose or describe the use of a “predetermined minimum number” of such queries. The Final Office Action takes the position that the predetermined minimum number could be one. Final Office Action, p. 10, lines 17-18. While Appellants do not dispute that a predetermined minimum number could be one, Appellants contend that regardless of this, Hirooka plainly does not disclose or describe the use of a predetermined minimum number in any form. As such, Hirooka would clearly fail to disclose only using keywords that exist a threshold minimum number of times in such user queries. Appellants respectfully submit that there is no *prima facie* case of anticipation and respectfully request withdrawal of the basis of this rejection of this claim.

Concerning Claim 10

Appellants cannot find in the cited portions of Hirooka “retrieving at least one popular search term associated with the category data; and generating the recommended listing based on the popular search term” as recited in claim 10. The Final Office Action apparently attempts to

construe an equivalence of Hirooka's keyword weighting system and Appellants' popular search term limitation. Appellants respectfully disagree with such a characterization of Hirooka.

Hirooka's keyword weighting scheme, specifically term frequency times inverse document frequency (TFIDF), weights keywords found in books a customer has purchased. Hirooka at § 3.3.2, ¶¶ 3-8. As described in Hirooka, given a keyword, the frequency of the keyword in a book may proportionately increase the recommendation rating of the book, such that a book that contains more instances of the keyword are ranked higher when compared to other books that contain fewer instances of the keyword. This weighting is not equivalent to determining frequently used search terms. An obvious difference is that Hirooka's keyword is derived from a previous purchase—not a search—and thus, could not be a "popular search term" as required by claim 10. Appellants respectfully submit that there is no *prima facie* case of anticipation and respectfully request withdrawal of the basis of this rejection of this claim.

Concerning Claims 2, 4, 5, 7-9, 11, 23, 24, 26, and 27:

Appellants respectfully submit that claims 2, 4, 5, 7-9, 11, 23, 24, 26, and 27 depend directly or indirectly on independent claims 1, 21, and 25, respectively. As such, these dependent claims incorporate all the limitations of their parent independent claims. Accordingly, Appellants submit that these dependent claims are patentable for at least the reasons set forth above.

Thus, Appellants respectfully request withdrawal of any basis of rejection of claims 2, 4, 5, 7-9, 11, 23, 24, 26, and 27. For brevity, Appellants reserve the right to present further remarks concerning the patentable distinctiveness of such dependent claims.

C.4 The Rejection of claims 3, 12-20, and 22 under § 103(a) using Hirooka in view of Ryan

Appellants respectfully submit that claims 3, 12-20, and 22 depend directly or indirectly on independent claims 1 and 21, respectively. As such, these dependent claims incorporate all the limitations of their parent independent claims. Accordingly, Appellants submit that these dependent claims are patentable for at least the reasons set forth above. Thus, Appellants respectfully request withdrawal of any basis of rejection of claims 3, 12-20, and 22. Appellants

reserve the right to present further remarks concerning the patentable distinctiveness of such dependent claims.

8. SUMMARY

In sum, because Hirooka does not disclose or describe all elements recited or incorporated in claims 1, 21, 25, and 28, as arranged in these claims, Appellants respectfully submit that there is no *prima facie* case of anticipation and respectfully request withdrawal of the basis of these rejections of these claims.

Respectfully submitted,

BENJAMIN D. FOSTER et al.

By their Representatives,

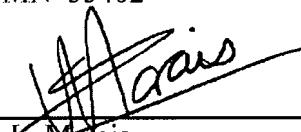
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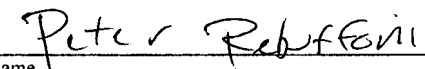
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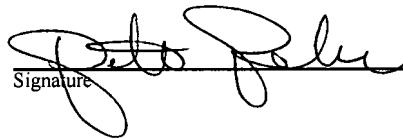


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CLAIMS APPENDIX

1. A method of generating listing recommendations to a user of a network-based commerce system, the method including:

identifying a term associated with a user interaction in the network-based commerce system, the identified term occurring within a search query;

automatically generating a recommendation query including the identified term;

running the recommendation query against a plurality of listings of the network-based commerce system to identify at least one recommended listing; and

presenting the at least one recommended listing to a user of the network-based commerce system.

2. The method of claim 1, wherein the user interaction with the network-based commerce system includes searching a plurality of listings of the network-based commerce system utilizing the search query.

3. The method of claim 1, wherein the user interaction with the network-based commerce system includes viewing the plurality of listings hosted by the network-based commerce system, and the identified term is associated with the listings viewed.

4. The method of claim 1, wherein the user interaction with the network-based commerce system includes transacting via the network-based commerce system, and the identified term occurs within a listing to which the transacting relates.

5. The method of claim 4, wherein the transacting includes purchasing a product associated with one of the listings.

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6. The method of claim 1, wherein the identified term is selected based on its existence in a predetermined minimum number of user-generated search queries submitted to the network-based commerce system.
7. The method of claim 6, wherein the search queries are category-specific.
8. The method of claim 6, wherein the predetermined minimum number of search queries comprise search queries submitted by a plurality of users of the network-based commerce system.
9. The method of claim 1, wherein the identified term comprises a plurality of words.
10. The method of claim 1, wherein the identifying the term includes:
retrieving data related to a previous user interaction;
determining category data related to a listing associated with the previous user interaction;
retrieving at least one popular search term associated with the category data; and
generating the recommended listing based on the popular search term.
11. The method of claim 10, which includes:
determining if any one of a plurality of popular search terms match any portion of a title of a listing;
ranking the matches based on popularity of the popular search terms when a plurality of popular search terms match the title; and
selecting the popular search term ranked based on its ranking.
12. The method of claim 1, wherein running the recommendation query against the plurality of listings of the network-based commerce system to identify the recommended listing includes:

locating listings hosted by the network-based commerce system, the located listings being between an upper popularity boundary and a lower popularity boundary, wherein the upper popularity boundary and the lower popularity boundary are associated with the identified term; determining if the located listings meet at least one predetermined criterion; ranking the located listings meeting the predetermined criterion; and selecting a predetermined number of highest ranked listings for recommendation to the user.

13. The method of claim 12, wherein the located listings that include the identified term include listings that have a title that contains the identified term.

14. The method of claim 12, wherein the recommendation query includes the identified term, the lower popularity boundary, and the upper popularity boundary.

15. The method of claim 14, wherein the lower popularity boundary comprises a corresponding parent level category of the identified term.

16. The method of claim 12, wherein the determining if the located listings meet the predetermined criterion includes determining if the listing is designated by the network-based commerce system as a listing for mature audiences.

17. The method of claim 12, wherein the determining if the located listings meet the predetermined criterion includes determining if the listing is banned by the network-based commerce system.

18. The method of claim 12, wherein the determining if the located listings meet the predetermined criterion includes determining if the listing would be returned in a search relying on the identified popular search term as the search criteria.

-
19. The method of claim 12, wherein the determining if the located listings meet the predetermined criterion includes determining if listing time of the located listing remaining on the network-based commerce system is greater than a predetermined minimum time.
20. The method of claim 12, wherein the determining if the located listings meet the predetermined criterion includes determining if the listing is available to the user based on a site through which the user is registered to communicate with the network-based commerce system.
21. A system to generate listing recommendations to a user of a network-based computer system, the system including:
- a communication engine to receive interaction data relating to a user interaction with a client machine;
 - a database engine to identify a term associated with the user interaction in the network-based computer system, the identified term occurring within a search query, and automatically to generate a recommendation query including the identified term; and
 - a search engine to run the recommendation query against a plurality of listings of the network-based computer system to identify at least one recommended listing, wherein the at least one recommended listing is communicated to the client machine of the network-based computer system.
22. The system of claim 21, wherein at least one of the communication engine, database engine and the search engine are provided by at least one server.
23. The system of claim 21, wherein the identified term occurs within a predetermined minimum number of search queries submitted to the network-based computer system.
24. The system of claim 21, wherein the predetermined minimum number of search queries comprise search queries submitted by a plurality of users of the network-based computer system.

25. A machine-readable medium including a set of instructions that, when executed by a machine, cause the machine to:

identify a term associated with a user interaction in the network-based computer system, the identified term occurring within a search query;

automatically generate a recommendation query including the identified term;

run the recommendation query against a plurality of listings of the network-based computer system to identify at least one recommended listing; and

communicate a data signal including the at least one recommended listing to a user of the network-based computer system.

26. The machine-readable medium of claim 25, wherein the user interaction with the network-based computer system includes searching a plurality of listings of the network-based computer system utilizing a search query and the identified term occurs within a search query.

27. The machine-readable medium of claim 25, wherein a listings signal including the plurality of listings hosted by the network-based computer system is communicated to the client machine for viewing, and the identified term is associated with the listings viewed.

28. A system to generate listing recommendations to a user of a network-based computer system, the system including:

means for identifying a term associated with a user interaction in the network-based computer system, the identified term occurring within a search query;

means for automatically generating a recommendation query including the identified term;

means for running the recommendation query against a plurality of listings of the network-based computer system to identify at least one recommended listing; and

means for communicating a data signal including the at least one recommended listing to a user of the network-based computer system.

29. The method of claim 4, wherein the transacting includes bidding on a product associated with one of the listings.

30. The method of claim 10, wherein the previous user interaction with the network-based commerce system includes bidding on a product associated with the listing.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.